www.eaton.com

Ellipse ECO
500/650/800/
1200/1600

Installation and user manual

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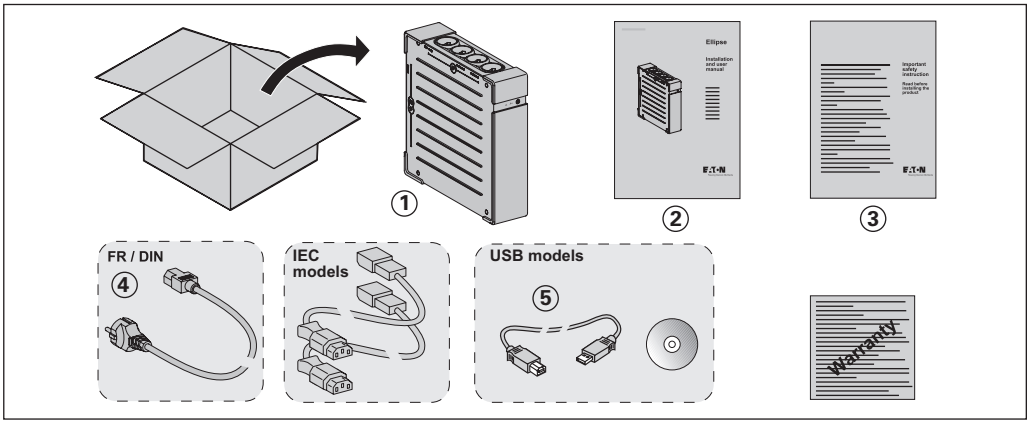
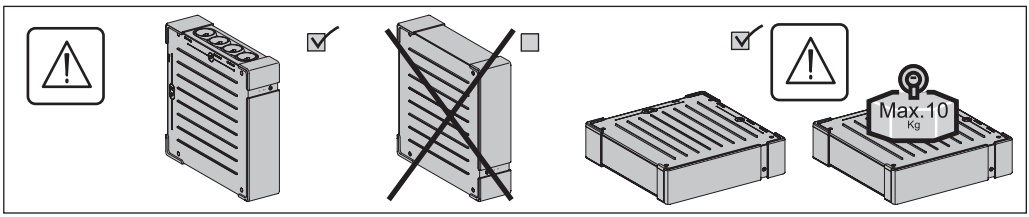
Packaging





Caution!

● Before installing the **Ellipse**, read the booklet ③ containing the safety instructions to be respected. Then follow the instructions given in this manual ②.

● Avant l'installation de **Ellipse**, lire le livret ③ qui présente les consignes de sécurité à respecter. Suivre ensuite les instructions du présent manuel ②.

● Vor Installation des **Ellipse** die im Heft ③ genannten Sicherheitsvorschriften lesen. Anschließend die Anweisungen im vorliegenden Handbuch ② befolgen.

● Prima dell'installazione del **Ellipse**, leggere attentamente le istruzioni di sicurezza riportate sul libretto ③.
In seguito, attenersi alle istruzioni riportate sul presente manuale ②.

● Antes de la instalación del **Ellipse**, leer el manual ③ que presenta las instrucciones de seguridad a cumplir. A continuación, seguir las instrucciones del presente manual ②.

● Lees voordat u het **Ellipse** gaat installeren eerst de veiligheidsinstructies in boekje ③. Volg daarna de instructies van deze handleiding ②.

● Antes da instalação do **Ellipse**, ler o caderno ③ onde constam as instruções de segurança a respeitar. Depois, seguir as instruções do presente manual ②.

● Πριν την εγκατάσταση του Ellipse, διαβάστε το φυλλάδιο ③ με τις συβουλές ασφαλείας που πρέπει να τηρείτε.
Στη συνέχεια, ακολουθήστε τις οδηγίες χρήσης αυτού του φυλλαδίου ②.

● Przed zainstalowaniem **Ellipse**, należy przeczytać instrukcję ③, która zawiera niezbędne zalecenia bezpieczeństwa.
Następnie należy zapoznać się z zaleceniami zawartymi w niniejszej instrukcji ②.

● Před instatací zdroje **Ellipse** si prostudujte příručku ③ kde najdete bezpečnostní předpisy, které je třeba dodržovat.
Dále postupujte podle pokynů uvedených v příručce ②.

● Pred inštaláciou výpustky si prečítajte knižku ③, v ktorej sú uvedené bezpečnostné príkazy, ktoré je potrebné dodržať. Potom postupujte podľa pokynov tejto príručky ②.

● Preden instalirate **Ellipse**, preberite knjižico ③, v kateri so varnostna navodila, ki jih je treba upoštevati. Nato sledite navodilom tega priročnika ②.

● Az **Ellipse** telepítése előtt olvassa el a ③-es könyvet, mely a betartandó biztonsági előírásokat tartalmazza. Ezután kövesse a jelen, ②-ös kezikönyv utasításait.

● **Ellipse'in** tesisatini yapmadan önce, uyulacakgüvenliktalimatlarini gösteren ③ sayili kitapçiği okuyunuz. Dana sonra isbu ② sayili ei kitabindaki talimatlara uyunuz.

● Перед установкой **Источника Бесперебойного Питания (ASI)** прочитайте инструкцию ③ с правилами по технике безопасности, которые необходимо соблюдать. Затем следуйте указаниям настоящего руководства ②.

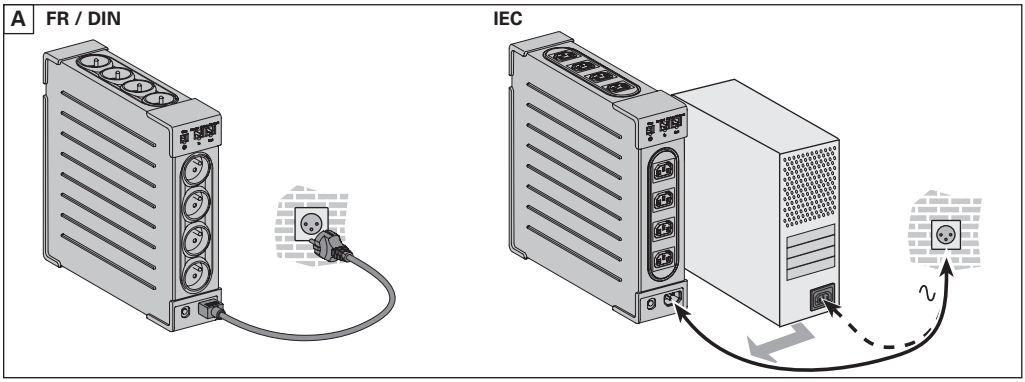
تحذير!

قبل تركيب جهاز Ellipse يجب الرجوع للكتيب ③ الذي يشتمل على إرشادات الأمان التي يجب التقيد بها، ثم اتبع التعليمات الموجودة في هذا الدليل ②.

● Innan installation av Ellipse, läs instruktionsmanualen ③ innehållande säkerhetsinstruktionerna och följ sedan dem. Följ sedan instruktionerna som ges i denna manual ②.

● Lue nämä ohjeet ennen **Ellipse** asennusta turvallisuusohjeet ③ ja käyttöohjeet ②.

Quick start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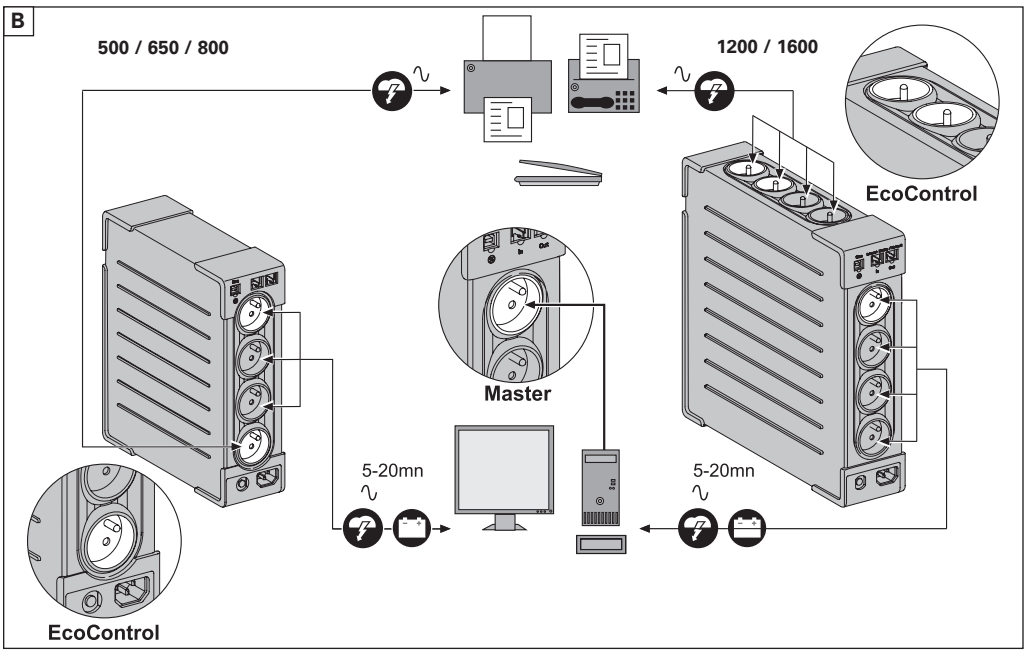
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500 / 650 / 800
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EcoControl
Master
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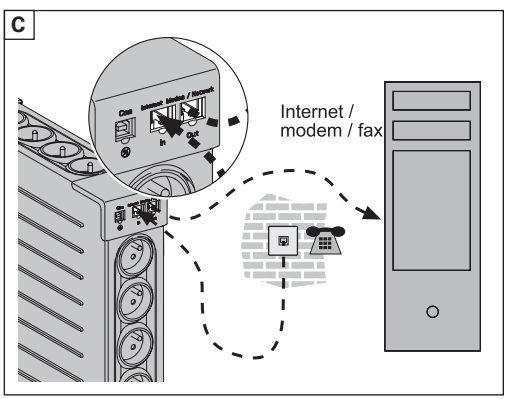
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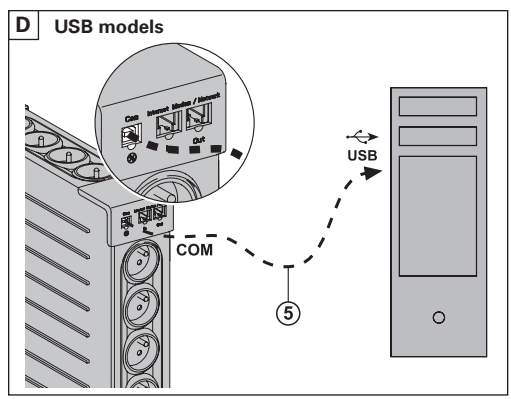
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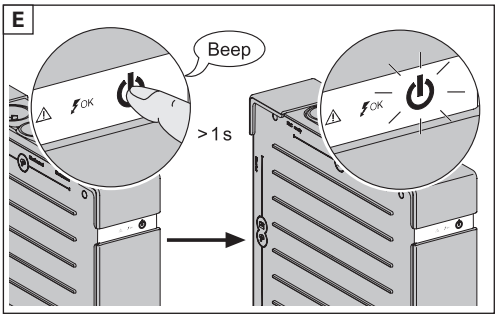
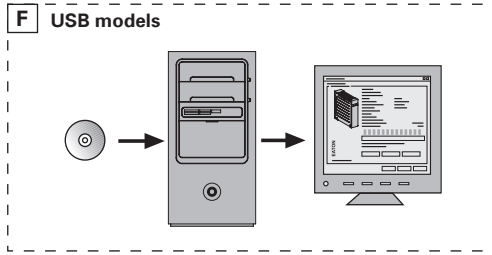
Quick start





Register warranty at: powerquality.eaton.com

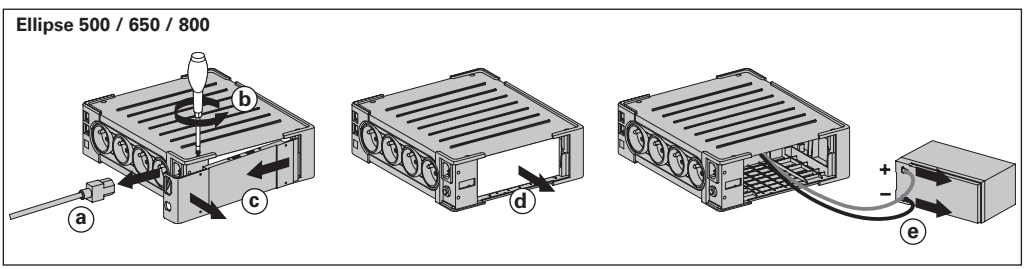
Battery disposal and safety

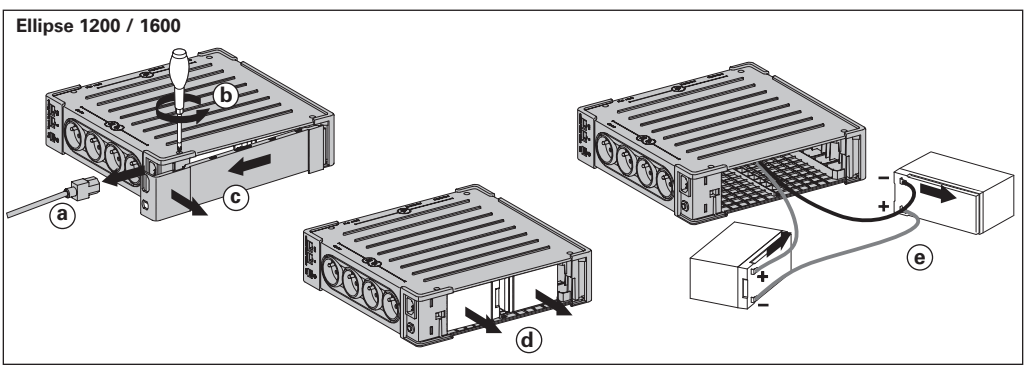
● **Caution**. Battery service life is reduced by 50 % for every ten degrees above 25 °C.

● **The battery elements must be replaced exclusively by qualified personnel (risk of electrocution)**, with new elements approved by EATON to ensure correct operation of the **UPS**.

● The battery must be disposed of in accordance with applicable regulations. To remove the battery elements, shut down the **UPS** (button ⑫ OFF), remove the power cord and proceed as indicated in page 4 "Battery change".

Battery change





● **Warning: take care not to inverse the polarity + (red) and - (black) when connecting the batteries as this will destroy the device.**

Technical characteristics

Ellipse ECO	500	650	800	1200	1600
• **UPS** power	500 VA / 300 W	650 VA / 400 W	800 VA / 500 W	1200 VA / 750 W	1600 VA / 1000 W
• Nominal input voltage	184 V - 264 V, adjustable to 161 V - 284 V				
• Input frequency	50/60 Hz (46 - 70 Hz working range)				
• Voltage/frequency of battery backup outlets (9) in battery mode	220 V / 230 V / 240 V +15 % -20 % (50/60 Hz ± 1 %)				
• Total output current for all outlets	10 A max				
• Output current of battery backup outlets (9)	2.3 A max	3 A max	3.6 A max	5.5 A max	7.3 A max
• Leakage current	0.4 mA				
• Input protection	10 A resettable circuit breaker				
• Transfer time	5 ms typical				
• Telephone surge protection	Tel, ISDN, ADSL, Ethernet				
• Sealed lead-acid battery	12 V, 4.5 Ah	12 V, 7 Ah	12 V, 9 Ah	2x12V, 7 Ah	2x12V, 9 Ah
• Automatic battery test	Once a week				
• Average battery life	4 years typical, depending on temperature and amount of discharge cycles				
• Operating temperature	0 to 35 °C				
• Storage temperature	-25 °C to +55 °C				
• Operating relative humidity	0 to 85 %				
• Operating elevation	0 to 2000 m				
• Safety standards	IEC 60950-1, IEC 62040-1, CE certified				
• Electromagnetic compatibility standards	IEC 62040-2, C1*				
• Warranty	2 years				
• Dimensions (mm)	263 x 81 x 235			305x81x312	
• Weigth (Kg)	2.9	3.6		6.7	7.8

(*) Warning: Output cables should not exceed 10m length.

Performances tested according to IEC 61643-1 (class 3) standard for 8/20 µs surge wave

AC input source protection, Ellipse ECO:	500	650	800	1200	1600
• Uoc (common mode / differential mode)	6 kV / 2 kV			6 kV / 1.8 kV	
• Up (common mode / differential mode)	1.8 kV / 0.7 kV			1.5 kV / 1 kV	
• In	3 kA				
Dielectric isolation					
• AC Ground	1500 Vac, 50 Hz				
• AC /TEL	3000 Vac, 50 Hz				
• Tel / Ground	1000 Vac, 50 Hz				
Temporary overvoltage (TOV)					
• Uc	250 Vac				
• Ut	430 Vac				
Energy dissipation	461 Joules				

Operating conditions

● This product is an **U**ninterruptible **P**ower **S**upply (**UPS**) for computers and their peripherals, television sets, stereo systems and video recorders... It must not be used to supply other electrical equipment (lighting, heating, household appliances, etc.).
● **UPS** can be installed in horizontal, vertical position, or placed in Rack 2U (optional kit).

UPS connections

● Connect the **UPS** ① to the AC-power system via a wall outlet with an earth connector, using the supplied cord ④ for a UPS with FR/DIN sockets or with the supply cord of your computer for a UPS with IEC sockets (see figure A).
● Plug critical equipment (computer, monitor, modem, etc.) into the outlets ⑨ providing battery backup power and surge protection (see figure B), taking care not to exceed the rated current indicated in amperes.
● Other devices (printer, scanner, fax, etc.) can be connect to the filtered outlets ⑧ that provide surge protection (see figure B). The filtered outlets are not backed up by battery power in the event of a power outage.
● **Optional Internet modem / Network connection:**
A modem or Ethernet data line can be protected against surges by connecting it via the **UPS**. Connect the existing device cable between the wall outlet and the **UPS**, and use a similar cable between the **UPS** and the device, as indicated in figure C (cable not supplied).
● **Optional USB connection:**
The **UPS** device can be connected to the computer using the USB cable ⑤ supplied.
The software is available on the CD-ROM ⑤ or downloadable from powerquality.eaton.com (see figures D and F).
Register for the warranty on powerquality.eaton.com.

Master and EcoControl outlets operating procedure

In order to limit energy consumption of peripherals (scanner, printer) in standby mode, the **Ellipse ECO** is equipped with **EcoControl** outlets that are dependent on the **Master** outlet. When the main application supplied by the **Master** outlet (computer) is shut down, the **EcoControl** outlets are automatically deactivated and the peripherals shut down.
This function (deactivated by default) is validated and configured using the configuration tool integrated in the software.
Note: *When the function is activated, do not connect critical applications to* ***EcoControl*** *outlets.*

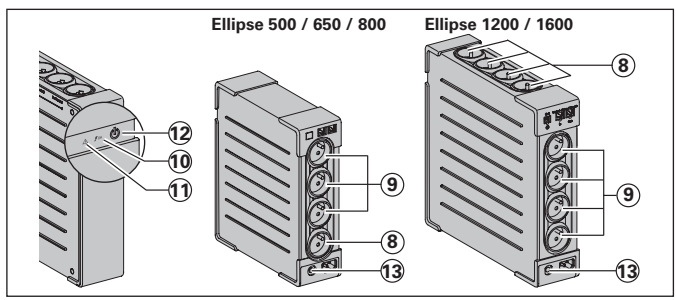
Threshold setup

A default setup ensures the correct operation of the **EcoControl** function. However, depending on the consumption of the main load, the trigger threshold of the **EcoControl** function may have to be modified using the configuration software supplied with the **UPS**:
● First, make sure that the function is activated in the "**EcoControl** Function" tab of the configuration tool.
● If the peripherals connected to the **EcoControl** outlets do not switch off when the main load is not in normal operation (ex: when in standby mode), the detection threshold value must be set to **High**.
● If the rated consumption level of the main load is low and the **EcoControl** outlets shut down when the main load is operating normally, the detection threshold value must be set to **Low**.

Operation

⑧ : Filtered outlets.
⑨ : Battery backup outlets.
⑩: LED ON indicate that surge protection is active.
⑪: LED ON indicate a **UPS** fault.
⑫: ON/OFF button for the battery backup outlets.
⑬: Protection circuit breaker.

● **Battery charge**: The **UPS** charges the battery as soon as it is connected to the AC outlet, whether button ⑫ is pressed or not. When used for the first time, the battery will only provide its maximum autonomy after it has been charged for 8 hours. It is recommended that the **UPS** be permanently connected to the AC power supply to ensure the best possible autonomy.
● **Switching-on the UPS**: press button ⑫ for about 1 second.
● **Filtered outlets ⑧ without battery backup**: Equipment connected to these outlets is supplied as soon as the AC cord ④ is plugged in. They are not affected by button ⑫.
● **Battery backup outlets ⑨**: Equipment connected to these outlets is supplied as soon as button ⑫ turns green (see figure E). These outlets can be turned on even if the **UPS** is not connected to AC power (button ⑫ flashes).
● **AC-power disturbance**: If AC power is disturbed or fails, the **UPS** continues to operate on battery power. Button ⑫ flashes green. In normal mode, the audio alarm beeps every ten seconds, then every three seconds when the end of battery backup time is near. In silent mode (see the section on settings), the audio alarm simply beeps once when the **UPS** transfers to battery power.
● If the power outage lasts longer than the battery backup time, the **UPS** shuts down and automatically restarts when power is restored. Following a complete discharge, a few hours are required to recharge the battery back to full backup time.
● To save battery power, it is possible to press button ⑫ to cut the supply of power to the devices connected to the battery backup outlets.
● **Lightning protection**: All outlets, whether backed up or simply filtered, include surge protection, whatever the position of button ⑫.
● **Shutdown of the battery backup outlets ⑨**: Press button ⑫ for more than two seconds.



Troubleshooting (For further information, visit the www.powerquality.eaton.com site or contact after-sales support.)

	Problem	Diagnostic	Solution
1	• The battery backup outlets ⑨ are not supplied with power.	• Button ⑫ is not lighted on.	• Press button ⑫ and check that it turns green.
2	• The connected devices are not supplied when AC power fails.	• The devices are not connected to the battery backup outlets ⑨.	• Connect the devices to the battery backup outlets ⑨.
3	• AC power is available, but the **UPS** operates on battery power.	• Circuit breaker ⑬, located under the **UPS**, has been tripped by an overload on the **UPS** output.	• Disconnect excess equipment and reset the circuit breaker ⑬ by pressing the corresponding button.
4	• The filtered outlets ⑧ are not supplied.	• The wall outlet is not supplied. • Circuit breaker ⑬, located under the **UPS**, has been tripped by an overload on the **UPS** output.	• Supply power to the wall outlet. • Disconnect excess equipment and reset the circuit breaker ⑬ by pressing the corresponding button.
5	• Green button ⑫ flashes frequently and audio alarm beeps.	• The **UPS** frequently operates on battery power because the AC power source is of poor quality.	• Have the electrical installation checked by a professional or use another wall outlet.
6	• Green button ⑫ flashes and audio alarm beeps continuously.	• The **UPS** battery backup outlets ⑨ are overloaded.	• Disconnect excess equipment connected to the battery backup outlets ⑨ .
7	• Red LED ⑪ is on and the audio alarm beeps every 30 seconds.	• A fault has occurred on the **UPS**. The battery backup outlets ⑨ are no longer supplied.	• Call after-sales support.
8	• Green LED ⑩ is off and the filtered outlets ⑧ are supplied.	• Surge protection is no longer provided.	• Call after-sales support.
9	• The telephone line is disturbed or modem access is not possible.	• Surge protection on the telephone line is no longer provided.	• Disconnect the telephone line from the wall outlet. • Call after-sales support.
10	• Red LED ⑪ flashes.	• The battery has reached the end of its service life.	• Have the battery replaced.
11	• EcoControl outlets keep powered when main application (Master outlet) is stopped.	• EcoControl function is not activated or not properly set.	• Activate or set properly EcoControl function using the software provided with the product.

Advanced customizing of your UPS

Sensitivity to variations of the AC power supply

• **Only to be used** if frequent switching to the **UPS** battery due to large variations in the AC supply voltage.

• Accessing the programming mode: with the device switched off, press button ⑫ for 6 s and release it once LEDs ⑩ ⑪ have come on.

• Display of the 3 possible voltage ranges according to the status of LEDs ⑩ and ⑪:

Normal mode (factory configuration): AC supply between 184V and 264V

Low range mode: AC supply between **161V** and 264V

Low and high range mode: AC supply between **161V** and **284V**

⑪= ON ⑫= ON ⑪= ON ⑫= OFF ⑪= OFF ⑫= ON

Change from one mode to another by successively pressing button ⑫.

• Memorizing the mode: 10 s after the last press of the button.

Audio alarm

• Possibility of deactivating the audio alarm when the **UPS** is operating on the battery.

• Accessing the programming mode: with the device switched off, press button ⑫ for 11 s and release it when the audio alarm sounds.

• Display of the 2 possible audio alarm modes:

Normal mode (factory configuration): the **UPS** emits a beep every 10 s when operating on its battery.

Silent mode: the **UPS** emits a single beep when switching to battery operation and then remains silent.

Normal mode activated: programming by continuous beep. → **Silent mode activated:** programming by a beep every second.

Change from one mode to another by successively pressing button ⑫.

• Memorizing the mode: 5 s after the last press of the button.